

## CLAIMS:

1. A compressor for hermetically encapsulated small-type refrigerating machines, comprising a cylinder with a cylinder housing (4) and a piston guided in a piston bore of the cylinder for compressing a working medium, with the cylinder being sealed in an axial direction by a cylinder head (1), characterized in that a fastening element (2, 24, 25) is provided which fastens the cylinder head (1) to the cylinder housing (4) by a contact pressure exerted in the region of the axis of the piston bore.
2. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 1, characterized in that the fastening element (2, 24, 25) is a clamp (2).
3. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 2, characterized in that the clamp (2) comprises a base part (5) and lateral parts (6), with the base part (5) being arranged in the axial direction in front of the cylinder head (1) and a contact pressure is exerted on the cylinder head (1) in the axial direction with the help of the base part (5), and the lateral parts are anchored in a fixed way relative to the cylinder housing (4).
4. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 3, characterized in that the lateral parts (6) are formed as laterally projecting, resilient legs (6) with end sections (7) bent in a substantially L-shaped manner, with the base part (5) resting on the cylinder head (1) and the anchoring of the lateral parts (6) relative to the cylinder housing (4) occurring by way of a latching of the end sections (7) of the resilient legs (6).

5. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 2 to 4, characterized in that the clamp (2) is provided with a substantially U-shaped configuration.
6. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 3 to 4, characterized in that the base part (5) is provided with an arched configuration in the direction of the legs (6).
7. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 4 to 6, characterized in that the latching occurs with the help of bearing blocks (3) which are rigidly connected with a supporting part (9) of the compressor, with the bearing blocks (3) each having at least one edge (12) which are encompassed at least partly by the end sections (7) of the legs (6).
8. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 4 to 6, characterized in that for forming a latching the clamp (2) encompasses the entire cylinder housing (4), with the cylinder housing (4) having edges (13) which are encompassed at least partly by the end sections (7) of the legs (6).
9. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 4 to 6, characterized in that the latching is formed with the help of grooves (8) in the cylinder housing (4) into which engage one end section (7) each of the legs (6).
10. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 3 to 9, characterized in that the base part (5) guides a pressing screw (14) which exerts a contact pressure on the cylinder head (1) in the axial direction.

11. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 3, characterized in that the base part (5) rests directly on the cylinder head (1) and the lateral parts (6) are anchored to bearing blocks (3) fixedly joined to a supporting part (9) of the compressor, with at least one of the lateral parts (6) being configured as a screwed connection between base part (5) and bearing block (3).
12. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 1, characterized in that the fastening element (2, 24, 25) is a locking clip (24).
13. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 12, characterized in that the elastically bendable fastening element (25) concerns a rope or a wire (25).
14. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 1 to 13, with the cylinder head (1) comprising a valve plate (16), characterized in that the valve plate (16) is partly sunk into a bore (17) in the cylinder housing (4), which bore comprises a step.
15. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 14, characterized in that the valve plate (16) comprises a radial nose (18) which engages in a respective radial notch (19) in the cylinder housing (4).
16. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 14, characterized in that the valve plate (16) comprises a radial notch into which engages a radially projecting nose of the cylinder housing (4).

17. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 14, characterized in that valve plate (16) as well as the cylinder housing (4) each comprise a radial notch (35, 36) into which a locking body (34) can be inserted with radial alignment of the notch (35) of the valve plate (16) with the notch (36) of the cylinder housing (4).
18. A compressor for hermetically encapsulated small-type refrigerating machines according to claim 17, characterized in that the cylinder head (1) can also comprise a radial notch (37) into which the locking body (34) can be inserted with overlapping alignment of the notch (35) of the valve plate (16) with the notch (37) of the cylinder head (1).
19. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 14 to 18, characterized in that in addition to the valve plate (16) the cylinder head (1) is at least partly sunk into the bore (17) in the cylinder housing (1), which bore preferably comprises one step.
20. A compressor for hermetically encapsulated small-type refrigerating machines according to one of the claims 1 to 19, characterized in that the contact pressure exerted by the fastening element (2, 24, 25) in the area of the axis of the piston bore corresponds to an axial force of pressure of 1000 N to 10000 N, preferably 3000 N.